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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,791	09/22/2005	Kiyotaka Yasuda	8007-1087	6850
<sup>465</sup> YOUNG & THOMPSON 209 Madison Street Suite 500 Alexandria, VA 22314			<div>EXAMINER</div> <div>YANCHUK, STEPHEN J</div>	
			<div>ART UNIT</div> <div>1795</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>10/16/2009</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/522,791

**Applicant(s)**

YASUDA ET AL.

**Examiner**

STEPHEN YANCHUK

**Art Unit**

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date 6/30/2009
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1, 2, 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Rivers et al (USPAT 5993999).

Rivers discloses a negative electrode comprising a pair of current collecting surface layers with an active material interposed between [Figures 2-5]. The active material is known to have a higher capability of forming lithium compounds than the current collecting surface layer and therefor reads on the claims whereby there is no definitive measurement of capability of forming lithium compound except to compare between the two elements presented, current collector and anode. The current collector is taught to be porous [Col 3Ln 62].

Claim 6: This claim defines the product by how the product was made. Thus, claim 6 is a product-by-process claim. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a structure having a layered structure. The reference suggests such a product.

2. Claim 1-3, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sugikawa (JP 09045334).

Sugikawa teaches a negative electrode comprising a metallic porous fiber sheet with micropores wherein an electrode comprising conductive metallic layers are arranged on both sides of the metallic fiber sheet (11). The fiber sheet is taught to be 5 $\mu$ m-30 $\mu$ m [claim 11] and the electrode is taught to be copper, nickel, stainless steel [Claim 10]. The active material is

taught to be a lithium containing oxide wherein it will be more capable of producing lithium compounds than the metal [Paragraph 20]. Figure 2-12 show the presence over the thickness of the active material.

Claim 6: This claim defines the product by how the product was made. Thus, claim 6 is a product-by-process claim. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a structure having a layered structure. The reference suggests such a product.

3. Claim 1-2, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakami et al. (JP08050922).

Kawakami teaches a negative electrode for a lithium cell comprising a metal layer (101) comprising an alloyable material with lithium (Ni, Cu, Ti, Al, aG, Au, Pt, Fe) as a current collecting portion and a mixture composed of powdery material (103) containing a metal capable of being alloyed with lithium (Al, Mg, K, Na, Ca, Sr, Ba, Si, Ge, Sb, Pb, In, Zn) and electrically conductive auxiliary (103) (carbon or metal).

Claim 6: This claim defines the product by how the product was made. Thus, claim 6 is a product-by-process claim. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a structure having a layered structure. The reference suggests such a product.

4. Claim 1-3, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamura et al. (JP2002-289178).

Tamura teaches an electrode with current collector provided with an active material. The current collector is composed of metal incapable of alloying with lithium and the active material layer is composed of metal capable of alloying with lithium. A surface coating is further provided on a surface of active material, opposite to the surface on which the current collector layer is provided. This surface is metal or metal alloy incapable or capable of alloying with Li.

Claim 6: This claim defines the product by how the product was made. Thus, claim 6 is a product-by-process claim. For purposes of examination, product-by-process claims are not limited to the manipulation of the recited steps, only the structure implied by the steps. See MPEP 2113. In the present case, the recited steps imply a structure having a layered structure. The reference suggests such a product.

5. Claim 1-3, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawakami et al. (JP8171901).

Kawakami teaches a battery where the anode has an active material that comprises an electroconductive material and an insulating or semiconductor material able to allow an ion to pass through wherein the body is 10% porous.

***Response to Arguments***

6. Applicant's arguments, filed 9/18/2009, with respect to claim 1 have been fully considered and are persuasive. This action is however final based on IDS. The above arguments are based on the arguments made in the European search report as submitted in the IDS filed 9/11/2009 and the art newly filed in the 6/30/2009 IDS.

***Conclusion***

7. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 7/01/2009 and 09/14/2009 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHEN YANCHUK whose telephone number is (571)270-7343. The examiner can normally be reached on Monday through Thursday 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/STEPHEN YANCHUK/  
Examiner, Art Unit 1795

/PATRICK RYAN/  
Supervisory Patent Examiner, Art Unit 1795